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FROM: Thomas D. Helmholdt
RE: Comments on Examiner's Reasons for Allowance
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Our Reference: VTE-137-B

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jeff Moler
Serial Number: 10/601,162
Filing Date: June 20, 2003
Examiner/Art Group Unit: Karen B. Addison/3726
Title: UNI-BODY PIEZOELECTRIC MOTOR

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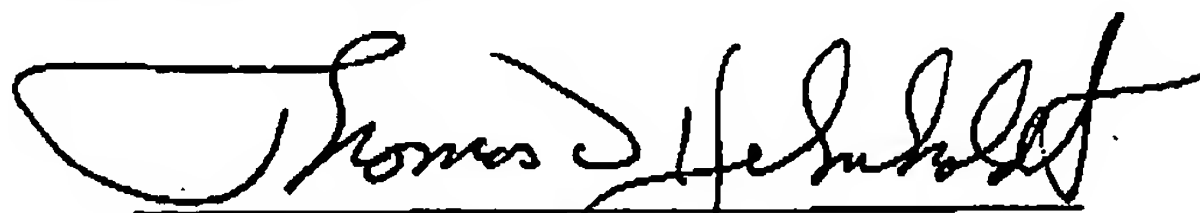
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Transmitted with this document is a Comments on Examiner's Reasons for Allowance in the above-identified application.

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COMMENTS ON EXAMINER'S REASONS FOR ALLOWANCE

Mail AF
Commissioner for Patents
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Sir:

REMARKS

The Examiner's Reasons for Allowance should have stated that the prior art fails to anticipate, teach or suggest the following:

an apparatus including a support structure having first and second arm portions formed thereon for movement relative to one another, and a secondary portion integrally formed on an outer end of each arm portion for movement therewith, and a primary actuator operably associated with the support structure for driving the arm portions relative to one another in response to an electrical activation of the primary actuator, and a secondary actuator operably associated with each secondary portion for driving each secondary portion between an opened position and a closed position in response to an electrical activation of the secondary actuator, each of the actuators being operable independently of one another as recited in Claim 1; or

an apparatus including a support structure having first and second arm portions formed thereon for movement relative to one another, and a secondary portion integrally formed on an outer end of each arm portion for movement therewith, wherein each of the secondary portions further includes a valve portion,

the secondary portions defining a first valve portion and a second valve portion, a primary actuator operably associated with the support structure for driving the arm portions relative to one another in response to an electrical activation of the primary actuator, and a secondary actuator operably associated with each secondary portion for driving each secondary portion between an opened position and a closed position in response to an electrical activation of the secondary actuator, each of the actuators being operable independently of one another, and an expandable positive displacement pumping chamber positioned between the first and second arm portions of the support structure and in fluid communication with the first valve portion and the second valve portion as recited in Claim 10; or

an apparatus including a support structure having first and second arm portions formed thereon for movement relative to one another, and a secondary portion on an outer end of each arm portion for movement therewith, and a primary actuator operably associated with the support structure for driving the arm portions relative to one another in response to an electrical activation of the primary actuator, and a secondary actuator operably associated with each secondary portion for driving each secondary portion between an opened position and a closed position in response to an electrical activation of the secondary actuator, each of the actuators being operable independently of one another, wherein the primary and secondary actuators can be triggered in different sequential series for bi-directional operation, wherein the bi-directional operation is operable to pump fluid in either direction with respect to the support structure as recited in Claim 13; or

a method including the steps of energizing a primary actuator for moving first and second primary pivotable arm portions of a support structure from a first position adjacent one another to a second position spaced apart from one another; and energizing at least one secondary actuator for moving first and second secondary pivotable arm portions integrally formed with the support structure from a first position adjacent one another to a second position spaced apart from one another, and sequentially energizing and de-energizing the primary and secondary actuators to perform work as recited in Claim 21, or

a method including the steps of energizing a primary actuator for moving first and second primary pivotable arm portions of a support structure from a first position adjacent one another to a second position spaced apart from one another, energizing at least one secondary actuator for moving first and second secondary pivotable arm portions of the support structure from a first position adjacent one another to a second position spaced apart from one another, sequentially energizing and de-energizing the primary and secondary actuators to perform work, opening a first valve responsive to energization of a first secondary actuator, while a normally closed second valve remains closed in response to a de-energized second secondary actuator, expanding a positive displacement pumping chamber responsive to energization of the primary actuator to draw fluid through the first valve into the chamber, closing the first valve in response to de-energization of the first secondary actuator, opening the second valve in response to energization of the second secondary actuator, and contracting the positive displacement pumping chamber in response to de-energization of the primary actuator to force fluid within chamber through the second valve as recited in Claim 23; or

an apparatus including a support structure having first and second arm portions movable relative to one another through an actuator-movement-amplification portion, and a secondary portion located on an outer end of each arm portion for movement therewith and a primary actuator operably associated with actuator-movement-amplification portion of the support structure for driving the arm portions relative to one another in response to an electrical activation of the primary actuator, and a secondary actuator operably associated with each secondary portion for driving each secondary portion between an opened position and a closed position in response to an electrical activation of the secondary actuator, each of the actuators being operable independently of one another as recited in Claim 24; or

an apparatus including, a support structure having first and second arm portions movable relative to one another, and a secondary portion located on an outer end of each arm portion for movement therewith, and a primary actuator operably associated with the support structure for driving the arm portions relative to one another in response to an electrical activation of the primary actuator, and a secondary

actuator operably associated with each secondary portion for driving each secondary portion between an opened position and a closed position through an actuator-movement-amplification portion in response to an electrical activation of the secondary actuator, each of the actuators being operable independently of one another as recited in Claim 28; or

an apparatus including a support structure having first and second arm portions movable relative to one another, and a secondary portion located on an outer end of each arm portion for movement therewith, and a primary actuator operably associated with the support structure for driving the arm portions relative to one another in response to an electrical activation of the primary actuator, and a secondary actuator operably associated with each secondary portion for driving each secondary portion between an opened position and a closed position in response to an electrical activation of the secondary actuator, each of the actuators being operable independently of one another, wherein at least one of the primary and secondary actuators operates through an actuator-movement-amplification portion of the support structure as recited in Claim 30.

Correction of the Examiner's Reasons for Allowance to encompass all of the allowed claim element combinations is requested.

Respectfully submitted,

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Dated: 3/16/2005
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